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WHOLE JOURNEY EXPERIENCES OF DISABLED USERS

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Abstract: *Disabled travellers are traditionally hard to reach when researching whole journey experiences. The aim of the FP7 project, METPEX, was to develop a set of Key Performance Indicators to measure the quality of the whole journey passenger experience across Europe. Mindful of the need to gather information from travellers with disabilities and other hard to reach groups (such as travellers with children, the elderly, those with low levels of literacy, rural dwellers and those from low income groups) focus groups were conducted across 8 EU countries. The results show wide variations in transport provision, but an overwhelming need to address inclusivity more comprehensively.*

Key Words: Public transport, disability, whole journey

1. INTRODUCTION

The Lisbon Strategy (2000) set a goal for the European Union to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion. Public transport has a central role to play in ensuring equitable access to social, economic, educational and health services. Its effective use is also seen as key to reducing urban congestion and greenhouse emissions. If public transport is to realize its full potential, a modal shift in traveler behaviour is required, from private to public transport. This will contribute to a significant reduction in the annual costs of road accidents, congestion, energy consumption and pollution, thus releasing funds for economic development, whilst meeting new political challenges such as climate change, energy policy and air quality legislation. However, public transport is regarded by many as an inferior form of transport.

Funded by the EU 7th Framework Programme, METPEX (**ME**asurement **T**ool to determine the quality of **P**assenger **E**xperience) aimed to develop and evaluate an inclusive, standardised means of measuring the quality of the passenger experience across whole journeys [1]. The underlying rationale for the project was that if operators and authorities were provided with a robust, reliable and tailorable means of measuring the whole journey,

multimodal passenger experience, they could improve service provision. If service provision was improved, travellers would be attracted out of their private vehicles, thereby reducing congestion and pollution and increasing health and well-being.

Interviews with UK transport operators and authorities [2] revealed that organisations responsible for the design, commissioning and operation of transport services have difficulty in getting information from traditionally hard-to-reach groups about the quality of transport. This difficulty was compounded by the fact that little attention is currently given to whole journey (origin to destination) experiences or trip chaining. Such 'hard-to-reach groups' are typically those who rely more on public transport, or who may not make the typical 'commute to work' journeys; these include those from low income and literacy groups, those with mobility restrictions, including older travellers and travellers with children and/or dependents.

Coordinated by Coventry University, the METPEX consortium brought together 16 European partners from 12 countries. It was hoped that the project results could not only be used to create more standardised, low cost tools for operators and authorities to gain traveller experiences, but also to inform EU policy about ways of providing sustainable, inclusive, passenger-oriented integrated transport systems that are accessible by all citizens.

Whilst guidelines and standards aimed at accommodating the different needs of different travellers have been established, there is still a lack of knowledge on what is really valued by groups of travellers who use different travel modes, and the requirements of those who do not use public transport. Moreover, previous studies often ignore the impact of the access and egress legs on the overall travellers' journey satisfaction. Taking a holistic approach to the study of the passenger experience and journey satisfaction, from both a user and stakeholder perspective will provide an important bridge between action and intention to use more sustainable travel modes [3].

Previous papers have addressed initial work with transport stakeholders [4], the results of the initial pilot study [5], the development of the on–line measurement tools [6] and the development of the survey instruments [7]. This paper summarizes the results relating to vulnerable and disabled travellers derived from a survey conducted simultaneously in 8 countries in 2014.

2. METHODOLOGY

An extensive set of over 1000 variables was developed in order to cover all stages of the journey, for different types of traveller, using different modes of transport (including walking and cycling). These were rank ordered in terms of importance and relevance by the project team and divided into 5 sections relating to baseline questions (user profile, journey description, preference and control questions), Tier 1 questions relating to 20 quality components, Tier 2 question relating to mode and user specific issues and Tier 3 question - more in depth questions relating to just one quality component. The questions were converted into formats suitable for completion by travellers in a series of measurement instruments. Survey logic was used to ensure that travellers only received the questions which were relevant to their profile and mode of travel. These were transferred into:

1. Pen and paper questionnaire facilitating semi structured interviews (all question groups)
2. On-line questionnaire (all question groups)
3. Real-time questionnaire, embedded in the SbNavi app. (in iOS and android systems)
4. Real-time questionnaire, embedded in the Metpex Game app (in android systems)
5. Focus group protocols.

Focus groups were designed as an additional means of collecting data from traditionally hard to reach user groups such as travellers with mobility, and/or communication and/or learning impairments as well over 64s, as it was anticipated that these groups may not be easily found in a general survey of passengers. The overall working procedure of the focus groups involved gathering travellers from the same user group in a room, asking them fill in the Baseline and Tier 1 questions, and with the help of a moderator, answer a preordained set of questions designed specifically for their transport group. The focus group sessions were recorded, transcribed and summarised in English.

3. RESULTS

As outlined above, the research took a mixed methods approach and involved an online and paper survey, a game app, a navigational tool and focus groups with surveys being carried out in Bucharest, Coventry , Dublin, Grevena, Rome, Stockholm, Valencia, Vilnius and through the Federation Internationale De L'Automobile (FIA) network.

The sample size for the 'special groups' was approximately 3840, comprised of those with communication impairments, commuters, low income, mobility restricted, elderly, rural dwellers, travellers with children or dependents, under 24s, visitors and women. The mean levels of satisfaction for each group from quantitative measurements are shown in Figure 1, out of a scale of 1-5. There was no significant difference in the perceived quality of experience among the different groups, but pooling results masked variations [see 8]. For example commuters and younger travellers were the least satisfied with their travel in Stockholm, yet in Vilnius rural dwellers and mobility restricted travellers rated their travel experience the poorest.

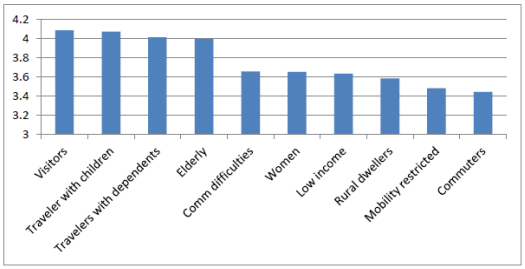

Figure 1: Mean results for traveller experience

The rest of the paper considers experiences related in the focus groups by over 64s and those with mobility restrictions

3.1 MOBILITY RESTRICTED GROUPS

The following issues emerged from a thematic analysis of focus group transcripts conducted with 47 participants in Coventry, Bucharest, Rome, Grevena and Dublin.

Table 1: Summary of results for mobility restricted groups

Information provision	• Although accessibility information may be provided it is still difficult to travel • Lack of staff to provide necessary information • Key information presented in one modality • Poor notification about service disruptions

Transport infrastructure	• Poor station design – few ramps/elevators – so need to be accompanied
	• Disabled parking spaces used by non-disabled car owners
	• Overall mobility hindered by
	  • lack of provision of dropped kerbs, ramps, poor parking.
	  • insufficient time to cross roads at lights
	  • few crossing points,
	  • drivers not obeying rules which makes navigation through the city difficult

Attitudes	• General lack of sympathy towards disabled travelers by both staff and fellow passengers, especially towards those with a non-visible disability • Poor attitude of drivers was a concern
Service provision	• Public transport does not always run at and a time and to places where it is needed • Travel at peak times is problematic and is avoided so that travellers can take their time, get a seat and avoid conflict with pedestrians • Not possible to book assistance in advance • Complaints handled badly (e.g. difficult to find people to complain to, when a formal complaint is made, very little action/recompense follows) • Priority seats used by those without disability who do not vacate them when needed • Lack of equal access to travel opportunities which means that group journeys cannot be shared.
Public transport drivers	• Poor bus driving e.g. buses do not line up with dropped kerbs, drivers are too rushed to park properly or wait for people to sit • Taxis and some buses may refuse to take people in wheelchairs or with guide dogs

3.2 OVER 64s

The following issues emerged from a thematic analysis of focus group transcripts conducted with 41 participants in Grevena, Italy, Stockholm and Coventry.

Table 2: Summary of results for over 64s

Information	• Written information on routes and schedules only presented in main

provision	terminals • Quality of audio information generally poor on all transport modes • Accessibility of online information poor • Timetables are hard to read and understand with too small fonts, incorrect positioning, and poor lighting • More information needed when changing modalities • Audible beeps for doors opening not loud enough
Transport infrastructure	• Incompatibility of wheelchairs with certain vehicles • Large gaps between trains and platforms/steep steps • Getting on and off buses was difficult because of steep steps, lack of ramps • Overcomplicated ticketing
Service provision	• Lack of transport provision at night • Lack of staffing on vehicles and stations • Lack of safety at night • Lack of public toilets • Public transport needs to keep pace with housing development
Bus drivers	• Drivers pull off too quickly • Poor parking of bus at stops makes (un)boarding difficult • Some drivers are unwilling to take guide dogs • Some drivers do not care about passengers and are unwilling to assist

Although the results have only been presented for two of the participant groups there was a considerable amount of overlap in the issues raised by the other participant groups - eg women and young people complained about safety, young people were victims of poor and unreliable information, those with poor communication skills found it hard to find staff to talk to, or understand information about service changes and ticket prices.

4. CONCLUSIONS

The METPEX tools were used to gather travel experiences from a range of travellers. The most appropriate means of gathering information from 'hard to reach groups' was through targeted focus groups. However, other methods may be more appropriate such as expert users or journey shadowing. The results gained in the focus groups showed that the quality of the journey experience might have been poorer than the results suggested from the quantitative results. Also, it was difficult to align the rich data from the transcripts with the quantitative analysis. This remains problematic in terms of a comprehensive survey design.

The results indicate that the problems experienced by older and disabled travellers are of a similar nature across the EU, with some evidence of good practice in certain countries and for types of service provision. However, poor quality of public transport DOES influence mobility patterns for these user groups, and the results confirm the experiences related in other studies. What remains surprising is that the accessibility and inclusivity of public transport is still an area of underinvestment especially when solutions may be relatively

cheap e.g. improving attitudes of drivers, complaints procedures and the provision of transport information.

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